

Title (en)  
METHODS FOR NON-INVASIVE ASSESSMENT OF GENETIC ALTERATIONS

Title (de)  
VERFAHREN ZUR NICHTINVASIVEN BEURTEILUNG GENETISCHER VERÄNDERUNGEN

Title (fr)  
PROCÉDÉS D'ÉVALUATION NON INVASIVE D'ALTERATIONS GENETIQUE

Publication  
**EP 3571615 B1 20240124 (EN)**

Application  
**EP 18704340 A 20180122**

Priority  
• US 201762448600 P 20170120  
• US 201762448601 P 20170120  
• US 2018014726 W 20180122

Abstract (en)  
[origin: WO2018136888A1] Technology provided herein relates in part to methods, processes, machines and apparatuses for non-invasive assessment of genetic alterations. In particular, a method is provided for that includes obtaining a set of sequence reads. The sequence reads each include a single molecule barcode (SMB) sequence that is a non-random oligonucleotide sequence. The method further includes assigning the sequence reads to read groups according to a read group signature. The read group signature comprises an SMB sequence and a start and end position of a nucleic acid fragment from the circulating cell free sample nucleic acid. The sequence reads comprising start and end positions and an SMB sequence similar to the read group signature are assigned to a read group. The method further includes generating a consensus for each read group, and determining the presence or absence of a genetic alteration based on the consensus for each read group.

IPC 8 full level  
**G16B 20/20** (2019.01); **G16B 20/40** (2019.01)

CPC (source: EP US)  
**C12Q 1/6816** (2013.01 - US); **G16B 20/00** (2019.02 - EP); **G16B 20/10** (2019.02 - US); **G16B 20/20** (2019.02 - EP US); **G16B 25/00** (2019.02 - US); **G16B 30/00** (2019.02 - EP); **G16B 30/10** (2019.02 - EP US); **G16B 20/10** (2019.02 - EP); **G16B 20/40** (2019.02 - EP US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2018136888 A1 20180726**; CA 3049682 A1 20180726; CA 3049682 C 20230627; CA 3198931 A1 20180726; EP 3571615 A1 20191127; EP 3571615 B1 20240124; EP 4235676 A2 20230830; EP 4235676 A3 20231018; US 11929145 B2 20240312; US 2019371429 A1 20191205

DOCDB simple family (application)  
**US 2018014726 W 20180122**; CA 3049682 A 20180122; CA 3198931 A 20180122; EP 18704340 A 20180122; EP 23172896 A 20180122; US 201816477931 A 20180122